Application No.: 10/045,903

Page 7

PATENT

REMARKS

As an initial matter, Applicants wish to thank the Examiner for indicating that Claims 8-11, 13-15 and 25-31 are allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 2-31 and 33-35 are pending in this application. Claims 2, 16, 22, 23 28, 29, and 33 have been amended. In particular, Claims 2, 16, 28, and 29 have been amended to correct typographical errors and grammatical errors, such as missing commas and hyphens, as well as an incorrect formula (Claim 2). In addition, it is noted that Claim 16 in the Preliminary Amendment filed on January 11, 2002 contains inconsistencies between that shown in Appendix A labeled "Version with Markings to show Changes Made" with that shown in the Response section. In amending Claim 16, the present Amendment and Response uses Claim 16 shown in the Response section of the Preliminary Amendment. Upon entry of this Amendment, claims 2-16, 22-31 and 33-35 will be pending in this application.

Attached hereto as Appendix A captioned "Version with Markings to show changes made" is a marked-up version of the changes made to the claims by the current amendment. In addition, for the convenience of the Examiner, all claims now pending following entry of the present Amendment and Response are reproduced in Appendix B captioned "Pending Claims."

Claim 33

Claim 33 has been amended *inter alia* by replacing "cycloakoxy" with "cyclyloxy" as suggested by the Examiner.

Double Patenting

Claims 2-6, 16, 22-24, and 33-35 are rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over Claims 19-21 of U.S. Patent No. 6,376,527.

When appropriate, Applicants will file a terminal disclaimer to overcome this double patenting rejection. However, at this time, Applicants request this issue be deferred until all of the other outstanding issues have been resolved.

Application No.: 10/045,903

Page 8

Rejection under 35 U.S.C. §103

Claims 2-7, 12, 16-24, and 33-35 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over the Faraci reference (WO 94/13643).

Specifically, the Examiner asserts that the compounds of the present invention are embraced by the generic description of the compound in the Faraci reference. As discussed in detail below, as amended the generic compound disclosed in the Faraci reference does not encompass the compounds of the present invention; therefore, the rejection of claims under 35 U.S.C. §103(a) should be withdrawn.

The substituent that corresponds to a moiety of the formula:

in Compound of Formula I of the present invention is "R³" in the Faraci reference. This "R³" in the Faraci reference is defined as:

...phenyl, naphthyl, thienyl, benzothienyl, pyridyl, quinolyl, pyrazinolyl, pyrimidyl, imidazolyl, furanyl, benzofuranyl, benzothiazolyl, isothiazolyl, benzoisothiazolyl, thiazolyl, isoxazolyl, benzisoxazolyl, benzimidazolyl, triazolyl, pyrazolyl, pyrrolyl, indolyl, azaindolyl, benzoxazolyl, oxazolyl, pyrrolidinyl, thiazolidinyl, morpholinyl, pyridinyl, tetrazolyl, or 9 to 12 membered bicycloalkyl, optionally containing one to three of O, S or N-Z wherein Z is hydrogen, C₁-C₄ alkyl, C₁-C₄ alkanoyl, phenyl or phenylmethyl, wherein each one of the above groups may be substituted independently by from one to three of fluoro, chloro, bromo, C₁-C₆ alkyl, C₁-C₆ alkoxy, or trifluoromethyl, or one of cyano, nitro, amino, NH(C₁-C₆ alkyl), N(C₁-C₄ alkyl)(C₁-C₂ alkyl), COO(C₁-C₄ alkyl), CO(C₁-C₄ alkyl), SO₂NH(C₁-C₄ alkyl), SO₂N(C₁-C₄ alkyl)(C₁-C₂ alkyl), SO₂NH₂, NHSO₂(C₁-C₄ alkyl), S(C₁-C₆ alkyl), SO₂(C₁-C₆ alkyl), wherein alkyl and C₁-C₆ alkyl may be substituted by one or two of fluoro, chloro, hydroxy, amino, methylamino, dimethylamino or acetyl[.]

Page 2, lines 12-24. Therefore, the possible substituents for where R₃ is phenyl in the Faraci reference are limited to:

...one to three of fluoro, chloro, bromo, C_1 - C_6 alkyl, C_1 - C_6 alkoxy, or trifluoromethyl, or one of cyano, nitro, amino, NH(C_1 - C_6 alkyl), N(C_1 - C_4 alkyl)(C_1 - C_2 alkyl), COO(C_1 - C_4 alkyl), CO(C_1 - C_4 alkyl), SO₂NH(C_1 - C_4 alkyl), SO₂NH₂,

Application No.: 10/045,903

Page 9

NHSO₂(C_1 - C_4 alkyl), S(C_1 - C_6 alkyl), SO₂(C_1 - C_6 alkyl), wherein alkyl and C_1 - C_6 alkyl may be substituted by one or two of fluoro, chloro, hydroxy, amino, methylamino, dimethylamino or acetyl[.]

Page 2, lines 19-24.

In contrast, the possible substituents (i.e., R³) for aryl group "A" of the present invention are:

- (a) acylamino;
- (b) optionally substituted heterocyclyl;
- (c) optionally substituted anyl or heteroaryl;
- (d) heteroalkenyl;
- (e) heteroalkynyl;
- (f) heteroalkoxy;
- (g) optionally substituted heterocyclylalkyl;
- (h) optionally substituted heterocyclylalkenyl;
- (i) optionally substituted heterocyclylalkynyl;
- (j) optionally substituted heterocyclylalkoxy, cyclyloxy, or heterocyclyloxy;
- (k) optionally substituted heterocyclylalkylamino;
- (l) optionally substituted heterocyclylalkylcarbonyl;
- (m) -NHSO₂R⁶ where R⁶ is optionally substituted heterocyclylalkyl:
- (n) -NHSO₂NR⁷R⁸ where R⁷ and R⁸ are, independently of each other, hydrogen, alkyl or heteroalkyl;
- (o) -Y-(alkylene)-R⁹ where:

Y is a single bond, -O-, -NH- or -S(O)_n- (where n is an integer from 0 to 2); and R^9 is cyano, optionally substituted heteroaryl, -COOH, -COR¹⁰, -COOR¹¹, -CONR¹²R¹³, -SO₂R¹⁴, -SO₂NR¹⁵R¹⁶, -NHSO₂R¹⁷ or -NHSO₂NR¹⁸R¹⁹, where R^{10} is optionally substituted heterocycle, R^{11} is alkyl, and R^{12} , R^{13} , R^{14} , R^{15} , R^{16} , R^{17} , R^{18} and R^{19} are, independently of each other, hydrogen, alkyl or heteroalkyl;

Application No.: 10/045,903

Page 10

- (p) $-C(=NR^{20})(NR^{21}R^{22})$ where R^{20} , R^{21} and R^{22} independently represent hydrogen, alkyl or hydroxy, or R^{20} and R^{21} together are $-(CH_2)_n$ where n is 2 or 3 and R^{22} is hydrogen or alkyl;
- (q) -NHC(=X)NR²³R²⁴ where X is O or S, and R²³ and R²⁴ are, independently of each other, hydrogen, alkyl or heteroalkyl;
- (r) -CONR²⁵R²⁶ where R²⁵ and R²⁶ independently represent hydrogen, alkyl, heteroalkyl or optionally substituted heterocyclylalkyl, or R²⁵ and R²⁶ together with the nitrogen to which they are attached form an optionally substituted heterocyclyl ring;
- (s) -S(O)_nR²⁷ where n is an integer from 0 to 2, and R²⁷ is optionally substituted heterocyclylalkyl;
- (t) cycloalkylalkyl, cycloalkylalkynyl and cycloalkylalkynyl, all optionally substituted with alkyl, halo, hydroxy or amino;
- (u) arylaminoalkylene or heteroarylaminoalkylene;
- (v) Z-alkylene-NR³⁰R³¹ or Z-alkylene-OR³² where Z is -O-, and R³⁰, R³¹ and R³² are independently of each other, hydrogen, alkyl or heteroalkyl;
- (w) -OC(O)-alkylene-CO₂H or -OC(O)-NR'R" (where R' and R" are independently hydrogen or alkyl); and
- (x) heteroarylalkenylene or heteroarylalkynylene.

The differences between the substituents R^3 of the present invention and the substituents on the phenyl ring R_3 of the Faraci reference are shown in the substituent comparison Table below.

Substituent Comparison Table

Possible R ₃ Substituent(s) on the Phenyl group of the Faraci reference ¹	Substituent R ³ on the Aryl group "A" of the present invention
one to three of	
fluoro, chloro, bromo,	No halide is claimed. Therefore, there is no overlap with the compounds discussed in the Faraci reference.
C ₁ -C ₆ alkyl, C ₁ -C ₆ alkoxy, or trifluoromethyl,	No alkyl, alkoxy, or trifluoromethyl is claimed. Alkyl groups of R ³ in the present invention are substituted with optionally substituted heterocyclyl (see (g) above), cycloalkyl (see (t) above), etc. Therefore, there is no

Goldstein et al. Application No.: 10/045,903 Page 11

	overlan with the compounds discussed in the Ferrei
	overlap with the compounds discussed in the Faraci reference.
or one of cyano,	In the present invention, cyano group is present in -Y-
or one or cyano,	(alkylene)-R ⁹ form where: Y is a single bond, -O-, -NH-
	or S(O) (where n is an integer from 0 to 2).
	or -S(O) _n - (where n is an integer from 0 to 2); and R ⁹ is
	cyano Therefore, a simple cyano group on the aryl
	group is <u>NOT</u> claimed in the present invention, i.e.,
	unlike the compounds discussed in the Faraci reference,
	when the cyano group is present in the present invention,
	an alkylene chain between the cyano group and the aryl
	group is also present. Therefore, there is no overlap with
	the compounds discussed in the Faraci reference.
nitro,	No nitro group is claimed. Therefore, there is no overlap
	with the compounds discussed in the Faraci reference.
amino,	No amino group is claimed. Therefore, there is no
	overlap with the compounds discussed in the Faraci
NTVG G # 0	reference.
NH(C ₁ -C ₆ alkyl),	No alkyl amino or dialklyl amino group is claimed.
$N(C_1-C_4 \text{ alkyl})(C_1-C_2 \text{ alkyl}),$	Some of the amino groups claimed in the present
	invention are non-alkyl or non-dialkyl amino groups such
	as acylamino (see (a) above); and optionally substituted
	heterocyclylalkylamino (see (k) above). Therefore, there
	is no overlap with the compounds discussed in the Faraci
	reference.
COO(C ₁ -C ₄ alkyl),	This type of substituent is not claimed in the present
	invention. Therefore, there is no overlap with the
	compounds discussed in the Faraci reference.
$CO(C_1-C_4 \text{ alkyl}),$	Alkyl carbonyl substituent is not claimed in the present
	invention. R ³ of the present invention include
	heterocyclylalkylcarbonyl (see (l) above); therefore,
	unlike the compounds in the Faraci reference, the alkyl
	group in this carbonyl group is substituted with
	heterocyclyl group. Therefore, there is no overlap with
	the compounds discussed in the Faraci reference.
$SO_2NH(C_1-C_4 \text{ alkyl}),$	R^3 of the present invention can be $-S(O)_n R^{27}$ where n is
$SO_2N(C_1-C_4 \text{ alkyl})(C_1-C_2 \text{ alkyl}),$	an integer from 0 to 2. However, R ²⁷ is optionally
SO ₂ NH ₂ ,	substituted heterocyclylalkyl. See (s) above. Therefore,
	there is no overlap with the compounds discussed in the
	Faraci reference.
NHSO ₂ (C ₁ -C ₄ alkyl),	R ³ of the present invention can be -NHSO ₂ R ⁶ . However
	R ⁶ is optionally substituted heterocyclylalkyl. See (m)
	above. Therefore, R ⁶ can not be an alkyl group
	Accordingly, there is no overlap with the compounds
NHSO ₂ (C ₁ -C ₄ alkyl),	R ³ of the present invention can be -NHSO ₂ R ⁶ . However, R ⁶ is optionally substituted heterocyclylalkyl. See (m) above. Therefore, R ⁶ can not be an alkyl group.

Application No.: 10/045,903

Page 12

	discussed in the Faraci reference.
$S(C_1-C_6 \text{ alkyl}),$ $SO_2(C_1-C_6 \text{ alkyl}),$	R ³ of the present invention can be -S(O) _n R ²⁷ where n is an integer from 0 to 2. However, R ²⁷ is optionally substituted heterocyclylalkyl. See (s) above. Thus, R ²⁷ can not be an alkyl group. Therefore, there is no overlap with the compounds discussed in the Faraci reference.
wherein alkyl and C ₁ -C ₆ alkyl may be substituted by one or two of fluoro, chloro, hydroxy, amino, methylamino, dimethylamino or acetyl[.]	Even with this expanded definition of the C ₁ -C ₆ alkyl in the Faraci reference, there is no overlap between the compounds of the present invention and the compounds discussed in the Faraci reference.

1. See page 2, lines 19-24 of the Faraci reference.

As shown in the substituent comparison Table above, as amended none of the R³ substituents of the present invention overlaps with the generic concept disclosed in the Faraci reference. Accordingly, Applicants request withdrawal of the rejection under 35 U.S.C. §103(a).

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,

Reg. No. 40,945

TOWNSEND and TOWNSEND and CREW LLP

Two Embarcadero Center, 8th Floor San Francisco, California 94111-3834

Tel: (303) 571-4000 Fax: (303) 571-4321

DDC:bhr DE 7073924 v1

Application No.: 10/045,903

Page 13

PATENT

APPENDIX A VERSION WITH MARKINGS TO SHOW CHANGES MADE

Claims 17-21 have been cancelled.

Claims 2, 16, 22, 23, 28, 29, and 33 have been amended as follows.

- 2. (Amended Herein) The method of Claim 33 wherein R³ is:
- (a) optionally substituted heterocyclyl;
- (b) aryl or heteroaryl both optionally substituted with a substituent selected from halo, alkyl, amino, alkoxy, carboxy, lower alkoxy carbonyl, SO₂R' (where R' is alkyl) or SO₂NHR'R" <u>SO₂NR'R"</u> (where R' and R" are independently hydrogen or alkyl);
- (c) heteroalkyl;
- (d) heteroalkenyl;
- (e) heteroalkylamino;
- (f) (e) heteroalkoxy;
- (g) (f) optionally substituted heterocyclylalkyl or heterocyclyloxy;
- (h) (g) optionally substituted heterocyclylalkenyl;
- (i) (h) optionally substituted heterocyclylalkynyl;
- (i) optionally substituted heterocyclylalkoxy;
- (k) (j) optionally substituted heterocyclylalkylamino:
- (k) optionally substituted heterocyclylalkylcarbonyl;
- (m) (l) -Y-(alkylene)- R^9 where Y is a single bond, -O- or -NH- and R^9 is optionally substituted heteroaryl, -CONR¹²R¹³, -SO₂R¹⁴, -SO₂NR¹⁵R¹⁶, -NHSO₂R¹⁷ or -NHSO₂NR¹⁸R¹⁹ where R¹², R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ are independently of each other hydrogen, alkyl or heteroalkyl;
- (n) (m) cycloalkylalkyl, cycloalkylalkynyl and cycloalkylalkynyl, all optionally substituted with alkyl, halo, hydroxy or amino;

Application No.: 10/045,903

Page 14

(m) (n) arylaminoalkylene or heteroarylaminoalkylene; or

- (n) (o) Z-alkylene-NR³⁰R³¹ where Z is -NH-, -N(alkyl)- or -O-, and R³⁰ and R³¹ are independently of each other, hydrogen, alkyl or heteroalkyl.
- 16. (Amended Herein) The method of Claim 5, wherein R³ is:
- (a) heteroalkyl;
- (b) heteroalkoxy;
- (c) heteroalkylamino;
- (d) (c) optionally substituted heterocyclylalkyl;
- (e) (d) optionally substituted heterocyclylalkoxy;
- (f) (e) optionally substituted heterocyclylalkylamino;
- (g) (f) -Y-(alkylene)-R⁹ where Y is a single bond, -O- or -NH- and R⁹ is optionally substituted heteroaryl, -CONR¹²R¹³, SO₂R¹⁴, -SO₂NR¹⁵R¹⁶, -NHSO₂R¹⁷ or -NHSO₂NR¹⁸R¹⁹ where R¹², R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ are independently of each other hydrogen, alkyl or heteroalkyl; or
- (h) (g) Z-alkylene-NR³⁰R³¹ where Z is -NH-, -N(alkyl)- or -O-, and R³⁰ and R³¹ are independently of each other, hydrogen, alkyl or heteroalkyl.
- 22. (Amended Herein) The method of Claim 16, wherein R³ is heteroalkoxy or heteroalkylamino.
- 23. (Amended Herein) The method of Claim 22, wherein R³ is at the 3-position and is selected from the group consisting of 3-dimethylaminopropoxy, 2-dimethylaminoethoxy, 2-hydroxyethoxy, 2,3-dihydroxypropoxy, and 2,2-(dihydroxymethyl)ethoxy, 2-dimethylaminoethylamino and 3-dimethylaminopropylamino.
- 28. (Amended Herein) The method of Claim 16 wherein R^3 is -Y-(alkylene)- R^9 where Y is a single bond, -O- or -NH- and R^9 is optionally substituted heteroaryl, -CONR¹²R¹³, -SO₂R¹⁴, -SO₂NR¹⁵R¹⁶, -NHSO₂R¹⁷ or -NHSO₂NR¹⁸R¹⁹ where R^{12} , R^{13} , R^{14} , R^{15} , R^{16} , R^{17} , R^{18} and R^{19} are independently of each other hydrogen, alkyl or heteroalkyl.

<u>PATENT</u>

Application No.: 10/045,903

Page 15

29. (Amended Herein) The method of Claim 28, wherein Y is a single bond and R^9 is ${}_{-}SO_2R^{14}$ or ${}_{-}SO_2NR^{15}R^{16}$.

33. (Amended Herein) A method of treatment of a disease in a mammal treatable by administration of a p38 MAP kinase inhibitor, comprising administration to the mammal a therapeutically effective amount of a compound selected from the group of compounds represented by Formula (I):

wherein:

R¹ is hydrogen or acyl;

R² is hydrogen or alkyl;

A is an aryl ring;

B is an aryl ring;

R³ is selected from the group consisting of:

- (a) amino, alkylamino or dialkylamino;
- (b) acylamino;
- (e) (b) optionally substituted heterocyclyl;
- (d) (c) optionally substituted aryl or heteroaryl;

(e) heteroalkyl;

- (f) (d) heteroalkenyl;
- (g) (e) heteroalkynyl;
- (h) (f) heteroalkoxy;
- (i) heteroalkylamino;
- (j) (g) optionally substituted heterocyclylalkyl;

Application No.: 10/045,903

Page 16

- (k) (h) optionally substituted heterocyclylalkenyl;
- (i) optionally substituted heterocyclylalkynyl;
- (m) (j) optionally substituted heterocyclylalkoxy, eyeloakoxy cyclyloxy, or heterocyclyloxy;
- (n) (k) optionally substituted heterocyclylalkylamino;
- (0) (1) optionally substituted heterocyclylalkylcarbonyl;
- (p) heteroalkylearbonyl;
- (q) (m)-NHSO₂R⁶ where R⁶ is alkyl, heteroalkyl or optionally substituted heterocyclylalkyl;
- (r) (n) -NHSO₂NR⁷R⁸ where R⁷ and R⁸ are, independently of each other, hydrogen, alkyl or heteroalkyl;
- (s) (o) -Y-(alkylene)-R⁹ where:

 Y is a single bond, -O-, -NH- or -S(O)_n- (where n is an integer from 0 to 2); and R⁹ is cyano, optionally substituted heteroaryl, -COOH, -COR¹⁰, -COOR¹¹, -CONR¹²R¹³, -SO₂R¹⁴, -SO₂NR¹⁵R¹⁶, -NHSO₂R¹⁷ or -NHSO₂NR¹⁸R¹⁹, where R¹⁰ is alkyl or optionally substituted heterocycle, R¹¹ is alkyl, and R¹², R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ are, independently of each other, hydrogen, alkyl or heteroalkyl;
- (th) (p) -C(=NR²⁰)(NR²¹R²²) where R²⁰, R²¹ and R²² independently represent hydrogen, alkyl or hydroxy, or R²⁰ and R²¹ together are (CH₂)_n- where n is 2 or 3 and R²² is hydrogen or alkyl;
- (v) (r) -CONR²⁵R²⁶ where R²⁵ and R²⁶ independently represent hydrogen, alkyl, heteroalkyl or optionally substituted heterocyclylalkyl, or R²⁵ and R²⁶ together with the nitrogen to which they are attached form an optionally substituted heterocyclyl ring;

Application No.: 10/045,903

Page 17

- (w) (s) -S(O)_nR²⁷ where n is an integer from 0 to 2, and R²⁷ is alkyl,

 heteroalkyl, optionally substituted heterocyclylalkyl, or -NR²⁸R²⁹

 where R²⁸ and R²⁹ are, independently of each-other, hydrogen,
 alkyl or heteroalkyl;
- (x) (t) cycloalkylalkyl, cycloalkylalkynyl and cycloalkylalkynyl, all optionally substituted with alkyl, halo, hydroxy or amino;
- (y) (u) arylaminoalkylene or heteroarylaminoalkylene;
- (z) (v) Z-alkylene-NR³⁰R³¹ or Z-alkylene-OR³² where Z is $\frac{\text{NH-,-}}{\text{N(lower-alkyl)- or}}$ -O-, and R³⁰, R³¹ and R³² are independently of each other, hydrogen, alkyl or heteroalkyl;
- (aa) (w) -OC(O)-alkylene-CO₂H or -OC(O)-NR'R" (where R' and R" are independently hydrogen or alkyl); and
- $\frac{\text{(bb)}(\mathbf{x})}{\mathbf{x}}$ heteroarylalkenylene or heteroarylalkynylene;

R⁴ is selected from the group consisting of:

- (a) hydrogen;
- (b) halo;
- (c) alkyl;
- (d) alkoxy; and
- (e) hydroxy;

R⁵ is selected from the group consisting of:

- (a) hydrogen;
- (b) halo;
- (c) alkyl;
- (d) haloalkyl;
- (e) thioalkyl;
- (f) hydroxy;
- (g) amino;
- (h) alkylamino;
- (i) dialkylamino;

Application No.: 10/045,903 Page 18

- heteroalkyl; (j)
- (k) optionally substituted heterocycle;
- optionally substituted heterocyclylalkyl; **(1)**
- optionally substituted heterocyclylalkoxy; (m)
- alkylsulfonyl; (n)
- aminosulfonyl, mono-alkylaminosulfonyl or dialkylaminosulfonyl; (o)
- heteroalkoxy; and (p)
- (q) carboxy;

R⁶ is selected from a group consisting of:

- hydrogen; (a)
- (b) halo;
- alkyl; and (c)
- alkoxy; and (d)

prodrugs, individual isomers, mixtures of isomers and pharmaceutically acceptable salts thereof.

Goldstein et al.

Application No.: 10/045 003

Application No.: 10/045,903

Page 19

APPENDIX B PENDING CLAIMS

- 2. (Amended Herein) The method of Claim 33 wherein R³ is:
- (a) optionally substituted heterocyclyl;
- (b) aryl or heteroaryl both optionally substituted with a substituent selected from halo, alkyl, amino, alkoxy, carboxy, lower alkoxy carbonyl, SO₂R' (where R' is alkyl) or SO₂NR'R" (where R' and R" are independently hydrogen or alkyl);
- (c) heteroalkyl;
- (d) heteroalkenyl;
- (e) heteroalkoxy;
- (f) optionally substituted heterocyclylalkyl or heterocyclyloxy;
- (g) optionally substituted heterocyclylalkenyl;
- (h) optionally substituted heterocyclylalkynyl;
- (i) optionally substituted heterocyclylalkoxy;
- (j) optionally substituted heterocyclylalkylamino;
- (k) optionally substituted heterocyclylalkylcarbonyl;
- (l) -Y-(alkylene)-R⁹ where Y is a single bond, -O- or -NH- and R⁹ is optionally substituted heteroaryl, -CONR¹²R¹³, -SO₂R¹⁴, -SO₂NR¹⁵R¹⁶, -NHSO₂R¹⁷ or -NHSO₂NR¹⁸R¹⁹ where R¹², R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ are independently of each other hydrogen, alkyl or heteroalkyl;
- (m) cycloalkylalkyl, cycloalkylalkynyl and cycloalkylalkynyl, all optionally substituted with alkyl, halo, hydroxy or amino;
- (n) arylaminoalkylene or heteroarylaminoalkylene; or
- (o) Z-alkylene-NR³⁰R³¹ where Z is -NH-, -N(alkyl)- or -O-, and R³⁰ and R³¹ are independently of each other, hydrogen, alkyl or heteroalkyl.
- 3. The method of Claim 2 wherein R^1 and R^2 are hydrogen; and B is phenyl.

Application No.: 10/045,903

Page 20

4. The method of Claim 3 wherein A is phenyl.

- 5. The method of Claim 4 wherein R⁴ is hydrogen; and R⁵ is halo or alkyl.
- 6. The method of Claim 5 wherein R⁵ is chloro, fluoro or methyl; and R⁶ is hydrogen, chloro, fluoro, methyl or methoxy.
 - 7. The method of Claim 5, wherein R³ is optionally substituted heteroaryl.
- 8. The method of Claim 7, wherein R³ is pyridin-2-yl, pyridin-3-yl, pyridin-4-yl, N-oxidopyridin-2-yl, N-oxidopyridin-3-yl, N-oxidopyridin-4-yl or pyridon-2-yl, all optionally substituted.
 - 9. The method of Claim 8, wherein R^3 is at the 3-position.
 - 10. The method of Claim 9, wherein R⁵ is 4-F and R⁶ is hydrogen.
 - 11. The method of Claim 9, wherein R⁵ is 2-Me and R⁶ is hydrogen.
 - 12. The method of Claim 5, wherein R³ is optionally substituted phenyl.
- 13. The method of Claim 12, wherein R³ is 3-sulfamoylphenyl, 3-methylsulfonylphenyl, 3-carboxyphenyl or 3-ethoxycarbonylphenyl.
 - 14. The method of Claim 13, wherein R³ is at the 3-position.
 - 15. The method of Claim 14, wherein R⁵ is 4-F and R⁶ is hydrogen.
 - 16. (Amended Herein) The method of Claim 5, wherein R³ is:
 - (a) heteroalkyl;
 - (b) heteroalkoxy;
 - (c) optionally substituted heterocyclylalkyl;
 - (d) optionally substituted heterocyclylalkoxy;
 - (e) optionally substituted heterocyclylalkylamino;

Application No.: 10/045,903

Page 21

<u>PATENT</u>

- -Y-(alkylene)-R⁹ where Y is a single bond, -O- or -NH- and R⁹ is optionally substituted heteroaryl, -CONR¹²R¹³, SO₂R¹⁴, -SO₂NR¹⁵R¹⁶, -NHSO₂R¹⁷ or -NHSO₂NR¹⁸R¹⁹ where R¹², R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ are independently of each other hydrogen, alkyl or heteroalkyl; or
- (g) Z-alkylene-NR³⁰R³¹ where Z is -NH-, -N(alkyl)- or -O-, and R³⁰ and R³¹ are independently of each other, hydrogen, alkyl or heteroalkyl.
- 22. (Amended Herein) The method of Claim 16, wherein R³ is heteroalkoxy.
- 23. (Amended Herein) The method of Claim 22, wherein R³ is at the 3-position and is selected from the group consisting of 3-dimethylaminopropoxy, 2-dimethylaminoethoxy, 2-hydroxyethoxy, 2,3-dihydroxypropoxy, and 2,2-(dihydroxymethyl)ethoxy.
 - 24. The method of Claim 23 wherein R⁵ is 4-F or 2-Me and R⁶ is hydrogen.
- 25. The method of Claim 16, wherein R³ is optionally substituted heterocyclylalkyl, optionally substituted heterocyclylalkoxy or optionally substituted heterocyclylalkylamino.
- 26. The method of Claim 25, wherein R³ is at the 3-position and is selected from the group consisting of 3-(morpholin-4-yl)propoxy, 2-(morpholin-4-yl)ethoxy, 2-(2-oxo-pyrrolidin-1-yl)ethoxy, 3-(morpholin-4-yl)propyl, 2-(morpholin-4-yl)ethyl, 4-(morpholin-4-yl)butyl, 3-(morpholin-4-yl)propylamino, 2-(morpholin-4-yl)ethylamino, 4-hydroxy-piperidinylmethyl, 2-(S,S-dioxo-thiamorpholin-4-yl)ethyl, 3-(S,S-dioxo-thiamorpholin-4-yl)propyl and N-methylpiperazinylmethyl.
 - 27. The method of Claim 26 wherein R⁵ is 4-F or 2-Me and R⁶ is hydrogen.
- 28. (Amended Herein) The method of Claim 16 wherein R³ is -Y-(alkylene)-R⁹ where Y is a single bond, -O- or -NH- and R⁹ is optionally substituted

Application No.: 10/045,903

Page 22

heteroaryl, $-CONR^{12}R^{13}$, $-SO_2R^{14}$, $-SO_2NR^{15}R^{16}$, $-NHSO_2R^{17}$ or $-NHSO_2NR^{18}R^{19}$ where R^{12} , R^{13} , R^{14} , R^{15} , R^{16} , R^{17} , R^{18} and R^{19} are independently of each other hydrogen, alkyl or heteroalkyl.

29. (Amended Herein) The method of Claim 28, wherein Y is a single bond and R^9 is $-SO_2R^{14}$ or $-SO_2NR^{15}R^{16}$.

30. The method of Claim 29 wherein R³ is methylsulfonylethyl or sulfamoylethyl.

- 31. The method of Claim 30 wherein R⁵ is 4-F or 2-Me and R⁶ is hydrogen.
- 33. (Amended Herein) A method of treatment of a disease in a mammal treatable by administration of a p38 MAP kinase inhibitor, comprising administration to the mammal a therapeutically effective amount of a compound selected from the group of compounds represented by Formula (I):

$$R^3$$
 R^4
 R^1
 R^1
 R^2
 R^4
 R^1
 R^1
 R^2
 R^3
 R^4
 R^1
 R^3
 R^4
 R^4
 R^1
 R^3
 R^4
 R^5
 R^5

wherein:

R¹ is hydrogen or acyl;

R² is hydrogen or alkyl;

A is an aryl ring;

B is an aryl ring;

R³ is selected from the group consisting of:

- (a) acylamino;
- (b) optionally substituted heterocyclyl;
- (c) optionally substituted aryl or heteroaryl;

Application No.: 10/045,903

Page 23

- (d) heteroalkenyl;
- (e) heteroalkynyl;
- (f) heteroalkoxy;
- (g) optionally substituted heterocyclylalkyl;
- (h) optionally substituted heterocyclylalkenyl;
- (i) optionally substituted heterocyclylalkynyl;
- (j) optionally substituted heterocyclylalkoxy, cyclyloxy, or heterocyclyloxy;
- (k) optionally substituted heterocyclylalkylamino;
- (l) optionally substituted heterocyclylalkylcarbonyl;
- (m) -NHSO₂R⁶ where R⁶ is optionally substituted heterocyclylalkyl;
- (n) -NHSO₂NR⁷R⁸ where R⁷ and R⁸ are, independently of each other, hydrogen, alkyl or heteroalkyl;
- Y is a single bond, -O-, -NH- or -S(O)_n- (where n is an integer from 0 to 2); and R⁹ is cyano, optionally substituted heteroaryl, -COOH, -COR¹⁰, -COOR¹¹, -CONR¹²R¹³, -SO₂R¹⁴, -SO₂NR¹⁵R¹⁶, -NHSO₂R¹⁷ or -NHSO₂NR¹⁸R¹⁹, where R¹⁰ is optionally substituted heterocycle, R¹¹ is alkyl, and R¹², R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ are, independently of each other, hydrogen, alkyl or heteroalkyl;
- (p) -C(=NR²⁰)(NR²¹R²²) where R²⁰, R²¹ and R²² independently represent hydrogen, alkyl or hydroxy, or R²⁰ and R²¹ together are (CH₂)_n- where n is 2 or 3 and R²² is hydrogen or alkyl;
- (q) -NHC(=X)NR²³R²⁴ where X is O or S, and R²³ and R²⁴ are, independently of each other, hydrogen, alkyl or heteroalkyl;
- (r) -CONR²⁵R²⁶ where R²⁵ and R²⁶ independently represent hydrogen, alkyl, heteroalkyl or optionally substituted heterocyclylalkyl, or

Application No.: 10/045,903

Page 24

 R^{25} and R^{26} together with the nitrogen to which they are attached form an optionally substituted heterocyclyl ring;

- $-S(O)_nR^{27}$ where n is an integer from 0 to 2, and R^{27} is optionally (s) substituted heterocyclylalkyl;
- cycloalkylalkyl, cycloalkylalkynyl and cycloalkylalkynyl, all (t) optionally substituted with alkyl, halo, hydroxy or amino;
- arylaminoalkylene or heteroarylaminoalkylene; (u)
- Z-alkylene-NR³⁰R³¹ or Z-alkylene-OR³² where Z is -O-, and R³⁰, (v) R³¹ and R³² are independently of each other, hydrogen, alkyl or heteroalkyl;
- -OC(O)-alkylene-CO₂H or -OC(O)-NR'R" (where R' and R" are (w) independently hydrogen or alkyl); and
- heteroarylalkenylene or heteroarylalkynylene; (x)

R⁴ is selected from the group consisting of:

- (a) hydrogen;
- (b) halo;
- (c) alkyl;
- (d) alkoxy; and
- (e) hydroxy;

R⁵ is selected from the group consisting of:

- (a) hydrogen;
- (b) halo;
- (c) alkyl;
- (d) haloalkyl;
- (e) thioalkyl;
- (f) hydroxy;
- (g) amino;
- (h) alkylamino;
- (i) dialkylamino;

Application No.: 10/045,903

Page 25

- (j) heteroalkyl;
- (k) optionally substituted heterocycle;
- (l) optionally substituted heterocyclylalkyl;
- (m) optionally substituted heterocyclylalkoxy;
- (n) alkylsulfonyl;
- (o) aminosulfonyl, mono-alkylaminosulfonyl or dialkylaminosulfonyl;
- (p) heteroalkoxy; and
- (q) carboxy;

R⁶ is selected from a group consisting of:

- (a) hydrogen;
- (b) halo;
- (c) alkyl; and
- (d) alkoxy; and

prodrugs, individual isomers, mixtures of isomers and pharmaceutically acceptable salts thereof.

- 34. The method of Claim 33 wherein the disease is an inflammatory disease.
- 35. The method of Claim 34 wherein the disease is arthritis.

DE 7073924 v1